

SECRET**PRIORITY****1**

Declassification Review by NGA

1968 APR 26 23 34Z

OUT 64 938

P 262245Z
FM RUEPJU/NPIC WASH DC
TO RUEPJS/DIA WASH DC
BT
S E C R E T. CITE NPIC 3590.
FOR [REDACTED]

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IN RESPONSE TO THE SAFSS REQUIREMENT AS EXPRESSED IN THE 3 APRIL MEMORANDUM FOR THE DIRECTOR, NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER SIGNED BY [REDACTED] USN, DEPUTY CHIEF, SPECIAL ACTIVITIES OFFICE, DIAXX, NPIC FORWARDS THIS TECHNICAL EVALUATION OF GIANT SCALE MISSION S007.

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1. GIANT SCALE MISSION S007 WAS FLOWN ON 19 APRIL 1968 AND PROCESSED AT [REDACTED] EXCEPT FOR THE MATERIAL FROM [REDACTED]

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WHICH WE ASSUME WERE PROCESSED AT BEALE AFB. THE MISSION EMPLOYED FIVE OPTICAL SENSORS: A LEFT AND RIGHT TECHNICAL OBJECTIVE (AL AND AR), A LEFT AND RIGHT OPERATIONAL OBJECTIVE (OL AND OR), AND A VERTICAL TERRAIN OBJECTIVE (B). THE TERRAIN CAMERA DEVELOPED AN APPARENT MALFUNCTION AND THE IMAGERY FROM THIS SYSTEM CONTAINS ONLY 196 TITLED FRAMES. ONLY THE TECHNICAL AND OPERATIONAL OBJECTIVE MATERIAL IS EVALUATED IN THIS REPORT.

2. THE 90 PERCENT CLOUD COVER ON THIS MISSION PRECLUDES ANY RELIABLE STATEMENT OF ESTIMATED RESOLUTION OR PHOTO INTERPRETATION UTILITY.

3. THE ORIGINAL NEGATIVES (FIRST GENERATION) AND POSITIVE REPRODUCTIONS (SECOND GENERATION) WERE AVAILABLE FOR THE EVALUATION.

A. TECHNICAL OBJECTIVE CAMERAS: APPROXIMATELY 65 PERCENT OF THE PHOTOGRAPHY WAS ACQUIRED ABOVE 30 DEGREES OBLIQUITY. QUALITY OF THE REPRODUCTIONS CANNOT BE DETERMINED BECAUSE OF CLOUD COVER.

(1) LEFT TECHNICAL OBJECTIVE CAMERA (AL), S/N 64-03: NO ATTEMPT WAS MADE TO DETERMINE GROUND RESOLUTIONS, CONTRAST, OR DENSITY BECAUSE APPROXIMATELY 99 PERCENT OF THE PHOTOGRAPHY IS OBSCURED OR DEGRADED BY CLOUDS. THERE ARE RANDOM MINUS DENSITY STREAKS PARALLEL TO THE MAJOR AXIS THROUGHOUT THE MISSION, IN ADDITION TO STREAKS SPACED 0.25 INCH APART ACROSS THE ENTIRE FORMAT. EDGE STATIC IS PRESENT ALONG BOTH EDGES OF THE NEGATIVE. TITLE TRANSFER OCCURS INTERMITTENTLY. EMULSION LIFTS ARE PRESENT IN FRAMES 1-5, 8, 9, 12, 22, 40, 280, 281, 307, 411. EMULSION SCRATCHES ARE PRESENT IN FRAMES 1, 2, 3, 6, AND 7. A CAMERA OFF/ON WITH ASSOCIATED FOGGED AREAS, INDUCED BY MINOR LIGHT LEAKS, OCCUR BETWEEN FRAMES 38/39 AND BETWEEN FRAMES 279/280. THE DATA BLOCKS OF FRAMES 41 AND 282 ARE PARTIALLY CONTAINED IN THE PRECEDING FORMAT. FRAME 430 IS THE LAST TITLED FRAME IN THE LEFT TECHNICAL OBJECTIVE CAMERA MATERIAL.

(2) RIGHT TECHNICAL OBJECTIVE CAMERA (AR), S/N 64-03: THE GROUND RESOLUTION, DENSITY, AND CONTRAST CANNOT BE DETERMINED BECAUSE OF CLOUD COVER. THERE ARE RANDOM MINUS DENSITY STREAKS PARALLEL TO THE MAJOR AXIS THROUGH THE MISSION, IN ADDITION TO STREAKS SPACED 0.25 INCH APART ACROSS THE ENTIRE FORMAT. EDGE STATIC IS PRESENT ALONG BOTH EDGES OF THE NEGATIVE. TITLE TRANSFER AND LACQUER SMEAR OCCUR INTERMITTENTLY. EMULSION LIFTS ARE PRESENT IN FRAMES 2, 3, AND 38. EMULSION SCRATCHES ARE PRESENT IN

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ADVANCE CY
SANITIZED
WITH TEXT

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GROUP 1
Excluded from automatic
downgrading and
declassification

FRAMES 28, 281, 382, 397, 398, 405, 412, 416 AND 417. A CAMERA OFF/ON WITH ASSOCIATED FOG AREAS INDUCED BY MINOR LIGHT LEAKS, OCCURS BETWEEN FRAMES 33/34 AND BETWEEN FRAMES 279/280. FRAME 417 IS THE LAST TITLED FRAME IN THE RIGHT TECHNICAL OBJECTIVE CAMERA MATERIAL.

B. OPERATIONAL OBJECTIVE CAMERAS: ONLY SMALL PORTIONS OF OOC MATERIAL CONTAIN CLOUD FREE IMAGERY. MOST OF THIS CLOUD FREE IMAGERY IS EXPOSED IN AREAS OF HAZE OR VEHICLE MANEUVERING (TURNS); CONSEQUENTLY, THE IMAGERY CONTAINS THE NORMAL DEGRADATION ASSOCIATED WITH THESE FACTORS. THE DENSITY AND CONTRAST OF THE NEGATIVE IS SATISFACTORY WHERE GROUND IMAGERY WAS AVAILABLE.

(1) LEFT OPERATIONAL OBJECTIVE CAMERA (CL) S/N 4033: THE TIMING DOTS BEGIN 0.75 INCH AFTER THE START OF SCAN AND EXTEND 0.75 INCH BEYOND THE END OF SCAN. FOGGING OF THE FILM, ASSOCIATED WITH ILLUMINATION OF THE DATA CHAMBER, ENCLOSES APPROXIMATELY 0.25 INCH INTO THE IMAGERY BUT THE DEGRADATION IS MINOR. THE EVENTS COUNTER HAS A PLUS ONE BIAS OVER THE TITLED FRAME NUMBER. FRAME 745 IS THE LAST TITLED FRAME OF THE LEFT OPERATIONAL OBJECTIVE CAMERA MATERIAL.

(2) RIGHT OPERATIONAL OBJECTIVE CAMERA (CR) S/N 4032: THE TIMING DOT AND FOGGED AREAS ANOMALIES ARE THE SAME AS THE LEFT CAMERA. THE EVENTS COUNTER AND TITLED FRAME NUMBER ARE IDENTICAL. TITLE TRANSFER IS PRESENT INTERMITTENTLY THROUGHOUT THE MISSION. MINOR CREASES AND SCRATCHES ARE PRESENT IN FRAMES 1, 2, 741, 742, AND 743. TIMING DOTS ARE NOT IMAGED ON FRAMES 1 THROUGH 30. THE FIRST 0.25 TO 0.50 INCH OF SCAN (NEAREST NADIR) APPEARS TO BE OUT OF FOCUS. THIS IS SIMILAR TO THE OUT OF FOCUS ANOMALY REPORTED ON MISSION S004 BUT IS NOT AS EXTENSIVE. AN AIRCRAFT CARRIER IN THE GULF OF TONKIN IS IMAGED ON THE RIGHT OOC. THE QUALITY OF THE IMAGE IS VERY GOOD AND IS CONSIDERED TO BE AT LEAST EQUIVALENT TO THE BEST IMAGERY DETECTED ON MISSIONS S002 AND S004. HOWEVER, THERE IS NOT ENOUGH IMAGERY AVAILABLE TO PROVIDE AN ACCURATE MISSION QUALITY STATEMENT. FRAME 743 IS THE LAST TITLED FRAME OF THE RIGHT OPERATIONAL OBJECTIVE CAMERA MATERIAL.

4. MISSION RECORDER SYSTEM (MRS) CORRELATION TO FILM:

A. THE MRS TRANSMISSION, AS RECEIVED BY NPIC, CONTAINS THE WORDS, "TAPE DUAL RECORD PUNCH CARDS XXXXX", IN EVERY OTHER LINE OF THE FORMAT (XXXXX IS A FIVE DIGIT NUMBER INCREMENTING EACH RECORD BY ONE). THESE EXTRANEIOUS WORDS APPEAR TO RESULT FROM UNIVAC 1004 TRANSMISSION RATHER THAN ORIGINAL RECORDING. THE DATA CONTAINS OCCASIONAL FORMAT ERRORS AND ERRONEOUS DATA CAUSED BY DROPPED DIGITS. THE GMT PRINTOUT HELD A PLUS 24 HOUR BIAS, (EXAMPLE: GMT 051515 READ AS GMT 291515).

B. TECHNICAL OBJECTIVE CAMERAS: A FAIR TO GOOD CORRELATION WAS OBTAINED BETWEEN THE MRS AND TECHNICAL OBJECTIVE CAMERAS. THE MRS HELD BETWEEN A PLUS THREE AND PLUS FOUR FRAME BIAS THROUGHOUT THE MISSION ON BOTH CAMERAS. THE 24 HOUR CLOCK ON THE RIGHT TECHNICAL OBJECTIVE CAMERA HELD A MINUS FIVE SECOND BIAS WHILE THE CLOCK ON THE LEFT TECHNICAL OBJECTIVE CAMERA HELD A MINUS SIXTEEN SECOND BIAS (THESE ARE IN ADDITION TO THE AFOREMENTIONED 24 HOUR BIAS).

C. OPERATIONAL OBJECTIVE CAMERAS: THERE WAS NO CAMERA OFF/ON DURING THE MISSION AND THEREFORE IT WAS NOT POSSIBLE TO OBTAIN A FIRM CORRELATION DURING THE MISSION. THE FIRST FOUR LINES OF THE DATA APPEAR ERRONEOUS WHICH GIVES AN IMMEDIATE PLUS FOUR BIAS TO THE MRS. THE BEST ESTIMATED CORRELATION IS THAT THE MRS HOLDS A PLUS THREE TO PLUS FIVE BIAS IN THE FRAME NUMBERS.

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END OF MESSAGE